

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

321

U. S. DEPARTMENT OF AGRICULTURE

FARMERS' BULLETIN No. 1087

BEAUTIFYING THE FARMSTEAD



A HOME and its surroundings must be attractive in order to be most uplifting to the family, visitors, and passers-by.

Farmsteads especially need attention in order to secure satisfactory conditions. The farm home and the farm business are so closely related that the success of the latter is reflected in the appearance of the former.

All the buildings with their immediate surroundings must be considered. The roads and walks; the home vegetable, fruit, and flower gardens; the lawns; and the ornamental plantings are also important factors in determining the plan.

Each building needs sufficient land about it to give it a proper appearance and provide the necessary yards or work room, and each should be so located with respect to other buildings as to facilitate the work of the farm.

Roads and walks should be limited to the number necessary to facilitate daily traffic.

Vegetable, fruit, and flower gardens must provide liberally for the family needs.

The lawns should be so located and of such size as to give a pleasing setting for the home, but not large enough to make their care burdensome.

Suitable plantings are necessary to unite the parts of a farmstead into a pleasing, homelike whole. Trees are used for windbreaks, as frames for the buildings or a background for them, and to give shade. Shrubs are needed in abundance to hide partially the foundation lines of buildings, support their corners, give reasons for turns in drives or walks, and to screen unsightly objects. Native trees and shrubs and those known by trial to thrive in the locality are the best to use.

BEAUTIFYING THE FARMSTEAD

F. L. MULFORD,

Landscape Gardener, Office of Horticulture, Bureau of Plant Industry.

CONTENTS.

	Page.		Page.
Need of beautifying the farmstead	3	Lawns	35
Desirability of making plans for improvements in advance	8	Arrangement of plantings	39
Style of the design	11	Trees	40
Location of the buildings	17	Shrubs	47
Walks and drives	21	Vines	52
Service features	31	Herbaceous plants	54
		Plant material	55

NEED OF BEAUTIFYING THE FARMSTEAD.

HOMES are the foundation of a nation. With clean, attractive, pure homes the youth become strong, upright, honorable citizens. Anything that will make the home better will tend to improve citizenship.

The essentials of a good home are a man and woman resolved by their mutual efforts to make this world a better place in which to live and a structure that will protect life and health from undue exposure to the elements. (Fig. 1.) If the dwelling is to be really a home it must be more than a place at which to eat and sleep. (Fig. 2.) It must be for the mature a haven of rest from vexations incident to breadwinning and other serious duties of life and for the young a retreat for the solution of life's problems. Inspiration to better living must be there, incentive to strive diligently for the highest ideals; and to attain these ends, not only must the physical needs of the family be supplied moderately well but the home must be attractive. (Fig. 3.)

The foundation of this attractiveness is love among the members of the household, combined with a right moral, mental, and religious attitude. This attitude may be greatly altered by changed surroundings. Sufficiency of food and exercise with other physical comforts in moderation are conducive to the highest development,

while marked deficiency or excess of physical comforts is debilitating. Beauty in every form has an influence for good. Forms of beauty differ greatly in their effect on persons. Children especially are wonderfully affected for good or ill by their surroundings. The greatest influences are probably seldom realized at the time they are exerted.

It is important that the home should be carefully arranged so as to give the most helpful influences. This is well recognized in cities



FIG. 1.—A structure that will afford protection from undue exposure to the elements.

and towns so far as it relates to the arrangement and decoration of the interior of houses, to some extent to the house itself, and to a less degree to its surroundings. The purpose of this bulletin is to suggest the importance of improving the surroundings of farm homes and to show how unattractive conditions (fig. 2) may be made attractive (fig. 3) without undue labor or expenditure.

The poor taste and judgment shown in developing the outward appearance of our homes have left much to be desired. In the colonial days and the early days of the Republic the prevailing style of architecture and planting in both city and country was simple, direct, and attractive. (Fig. 4.) This may have been the result of

necessity or the exercise of good taste, probably the latter, in an honest endeavor to meet recognized needs by the most direct methods.



FIG. 2.—A comfortable place to eat and sleep, but not all a home should be. Compare with figure 3.

More recently, styles in city and suburban buildings have changed almost as rapidly as styles in clothing. Apparently the prevalent idea has been to make as much show as possible with the funds at



FIG. 3.—The building shown in figure 2 made homelike and attractive by suggested plantings.

command, with little regard to the real purpose to be served. What is more, the planting of trees, shrubs, and flowering plants has been largely neglected, and city and suburban styles have been

copied on the farms whether appropriate or not. (Fig. 5.) Now, however, there is an evident effort to make the style of building harmonize with its needs and location.

The attention attracted by properly located, well-arranged buildings with good plantings is itself evidence of the extent to which these matters have been neglected in all parts of the country. Much thought and money have been expended to provide luxuriously for the physical needs, even to an extent that is harmful rather than beneficial. Little thought has been given to external appearance beyond a show to the community for the money spent.

The application of good taste in beautifying the interior of the home has been more in evidence. Attractive and homelike interiors



FIG. 4.—A colonial farmhouse.

have been common both in city and country in spite of repeated waves of fashion in interior decoration and inappropriate exteriors.

The efforts of women to make the homes attractive usually include the immediate surroundings of the dwelling. In suburban communities and in cities which are not too closely built up, men are cooperating more and more actively in the development of home grounds and often take the initiative. On the farms the little attention that is given this matter is often contributed solely by the women of the household.

In cities and villages the home and the business are so separated both in place and in character that if the man comes home from his day's labor and puts thought and work on his home surround-

ings it is a positive relaxation and recreation. On the farm the business and the home are so intertwined and so close together and the character of the day's labor and of the effort to beautify the home surroundings are so nearly parallel that there is not the same relaxation or recreation in the effort. The very closeness of physical relationship between the business and the home make it all the more necessary that the preeminence of the home shall be emphasized in every way possible. If this is not done business will crowd out the home spirit and make life one round of drudgery.

The farm family, because of its comparative remoteness from the turmoil and distractions of the city, has wonderful opportunities to make a real home, while the city family, with its greater temptations to dissipate its energies, has to exercise much restraint to accomplish the same end. Among the opportunities of the farm

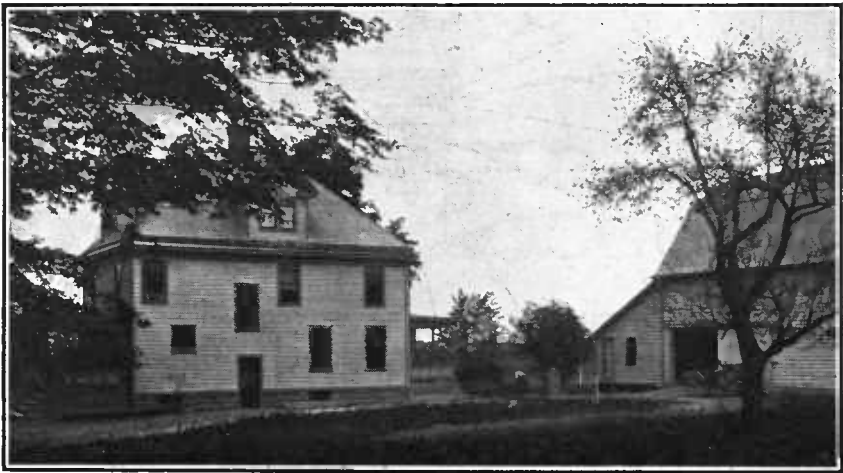


FIG. 5.—A city house in the country.

family is that of beautifying the farmstead, so that it may be more attractive to the occupants. This, in turn, will tend to make both young and old more contented. It will also add materially to the enjoyment of those who pass by and thus incidentally to the selling value of the farm.

Neglect of such improvement is usually due to one or more of the following causes: (1) Opinion that it will require too much time and work for upkeep, (2) a feeling that the improvement will be unsuited to farm conditions, (3) a belief that any adequate improvement will be too expensive, (4) indifference, and (5) a lack of understanding of what can be accomplished by expending a little effort in this direction.

DESIRABILITY OF MAKING PLANS FOR IMPROVEMENTS IN ADVANCE.

A farmstead consists of the farm buildings and the land immediately surrounding them that is necessary to their proper use and to the making of the home. Under this definition, not only are the buildings and the approaches from the highway a part of the farmstead, but also the cattle, hog, and chicken yards and the vegetable, fruit, and flower gardens. (Fig. 6.) Because of the intimate relationship between the farm home and the farm business all these things must be taken into account when planning to improve the

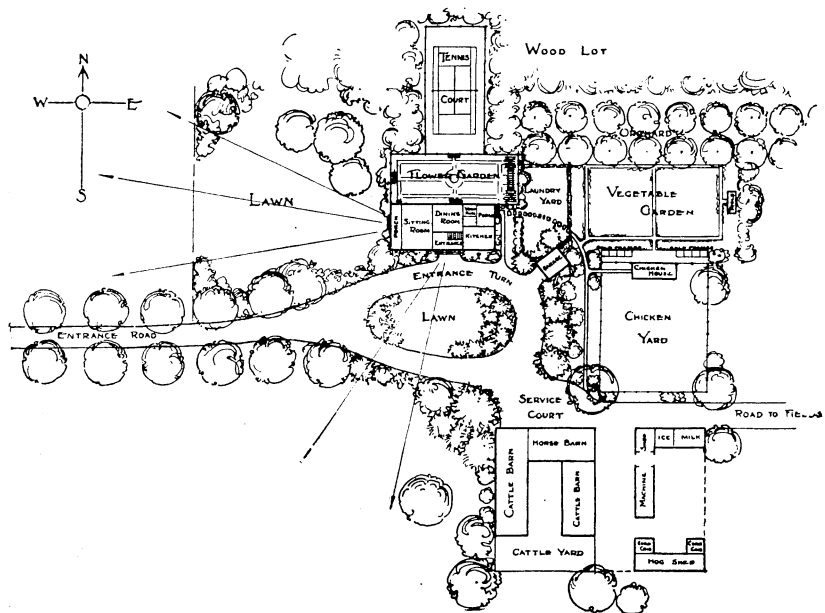


FIG. 6.—A plan for a farmstead where the buildings are back from a north-and-south road.

home surroundings. Not only the house lot but the whole farmstead must be considered.

Before any improvement can be made some idea must be formed as to what should be done. Are any changes in existing buildings, roads, or other permanent features desirable, and, if so, how can they be made, and, after all, will the change really be an improvement? (Figs. 7 and 8.) Such a consideration of the conditions is planning, whether the results are held in the mind of the one doing it or are put upon paper either in the form of written memoranda of the changes to be made or as a drawing showing what is to be done.

In order that the whole family may be interested and thoroughly understand what is being considered and have an opportunity intel-

ligently to offer suggestions, it is desirable that some memoranda be put upon paper. The more complete this is and the more carefully it is worked out, the less is the likelihood of unexpected difficulties arising as the work progresses. It is appropriate to include features that may not be carried out for several years (fig. 9), so these improvements can be made when the time comes without interfering with other features of the plan.

When an established place is to be improved it should be studied in the same way as a new place, forgetting all roads

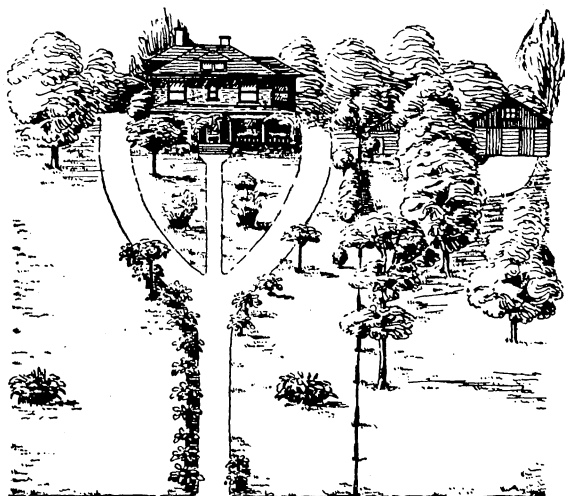


FIG. 7.—Undesirable arrangement of an approach to a farmstead. Compare with figure 8.

and structures, except, possibly, the largest and most expensive buildings. In making the first studies, even these should not be assumed to

be incapable of being moved or altered. Then plans should be made which incorporate the buildings as they exist. If the last plans made are not as satisfactory as the original ones, alterations should be considered until a practical compromise is evolved, even though it require changes in permanent features, such as roads and buildings.

In planning a new place the first thing



FIG. 8.—A revised design for an approach to the farmstead shown in figure 7.

to be considered is the approximate location of the principal buildings, with the space they should have about them and the relation of that space and of the buildings to one another. Then

the necessary drives and walks, including the approaches to the buildings and all service features, should be located. After this, the detailed plans of the buildings should be worked out to conform to the general scheme, followed finally by the planting suggestions. It is much easier to move a building before the cellar wall is built than after it is up, and much annoyance can be saved by making plans of the grounds and then of the buildings. This holds whether an old place is to be slightly modified or a new place built and whether the work is to be done

by the owner or by landscape designers and architects.

It frequently happens that houses and barns are put up without seriously considering their relation to one another or to the means of getting to and from them. Awkward situations often arise even in flat countries from such lack of foresight, while in rough countries almost impossible conditions frequently occur from such neglect. To prevent difficulties it is necessary to plan the grounds carefully before building

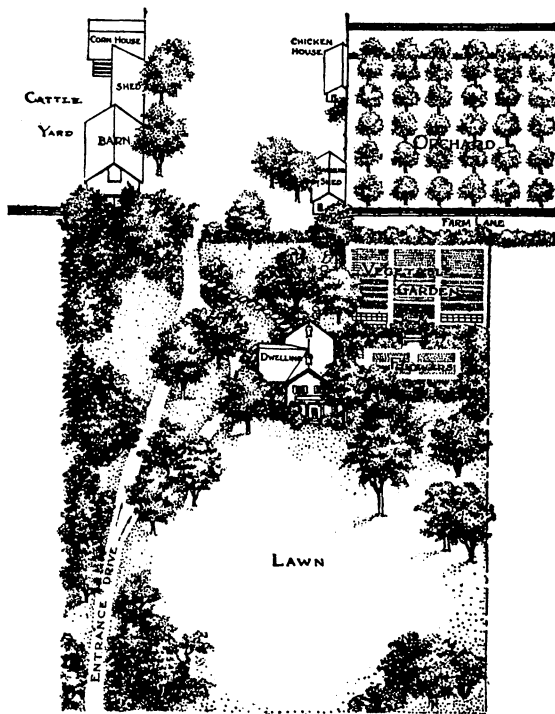


FIG. 9.—Plan of a farmstead located near the highway.

and then make the building plans to suit. In this connection it is essential to study thoroughly the land conditions as to elevation, slopes, and drainage.¹ Also consideration should be given to the desirability of the different points of the compass as exposures for the important rooms of the home or for facing the different buildings or the yards adjoining them. This is called "orientation" by architects and engineers. In addition, it is necessary to decide whether the development is to be simple and inexpensive or elab-

¹ Topography is a general term applied to elevations, slopes, hollows, marshes, water courses, and other surface features of the land. A map showing such features is known as a topographical map.

orate and pretentious; whether the greatest possible economy of funds and lands is essential or whether a liberal expenditure is permissible. Further, a general conception must be formed of the style of place that is desired; whether free and open or secluded, whether austere and commanding or cosy and retiring, whether massive or airy, palatial or simple, somber or gay, pretentious or modest, forbidding or hospitable, dignified or riotous.

STYLE OF THE DESIGN.

So far no distinctive type of American farm architecture has developed, although some localities have evolved typical styles. Examples of these are found in New England with the house and barn



FIG. 10.—Typical New England farm buildings.

connected by a woodshed (fig. 10); in central New York with a story and three-fourths house and a moderate-sized barn; in southeastern Pennsylvania with its bank barn of stone, stable high with an "overshoot" on the south (fig. 11) and a moderate-sized dwelling; and in the South with large houses (fig. 12) and the other farm buildings subordinated. Because so much of our farming country is flat it would seem that the ultimate prevailing style should be low and spreading and that the prevailing lines should be horizontal, to make them harmonize more nearly with the landscape. Small communities with special conditions will be likely to develop their own styles.

An important thing is to have the buildings on any farm sufficiently similar in appearance to seem to belong together (fig. 13). The barns should all be of the same general style, and the houses

should be livable and attractive, but not so different in their general lines as to seem out of place (figs. 14 and 21).

After these factors are determined the type of landscape treatment must be studied so as successfully to apply that which is best adapted to farmsteads. In general, only informal designs are applicable except in limited garden areas, but in order to understand informal design better it is desirable to have a clear idea of formal design. Formal design in landscape (see the flower gardens shown in figs. 4 and 36 and the plan illustrated in fig. 15) is composed of geometrical figures, usually symmetrical,¹ and always balanced.² It is frequently emphasized by architectural or sculptural additions. In general, the more straight lines are used the greater is the formality. The buildings need to be regularly and symmetrically placed



FIG. 11.—A typical barn of southeastern Pennsylvania.

and appropriately designed. The ground must be graded to suit the plan. All the details both of grounds and of buildings must be carefully worked out to conform with one another, and the upkeep must be of the best continually. Formal design is inelastic, not readily permitting additions, and is relatively expensive both in installation and maintenance.

¹ "Symmetrical" in landscape design means that each part on one side of a central axis is exactly duplicated on the other. Each half of the design reflects the other half. This does not mean that the two sides must be alike in their details, as the design may be symmetrical only in general outline.

² "Balance" in landscape design means that the features on each side of an axis are of equal interest, but not necessarily alike. A symmetrical design is balanced, but a balanced design need not be symmetrical. The axis must be in the center of the interest, not necessarily in the center of the design. A large area of lawn with little planting on one side of a walk may be balanced, for example, by a smaller area on the other if it contains more striking objects.

Informal design in landscapes (see figs. 6, 9, 16, and 28) is composed of irregular, unsymmetrical, unbalanced figures. In its purest form it consists entirely of irregular curved lines. When straight lines or regular curves do appear in informal landscape designs they are united with architectural features, such as buildings, boundaries,

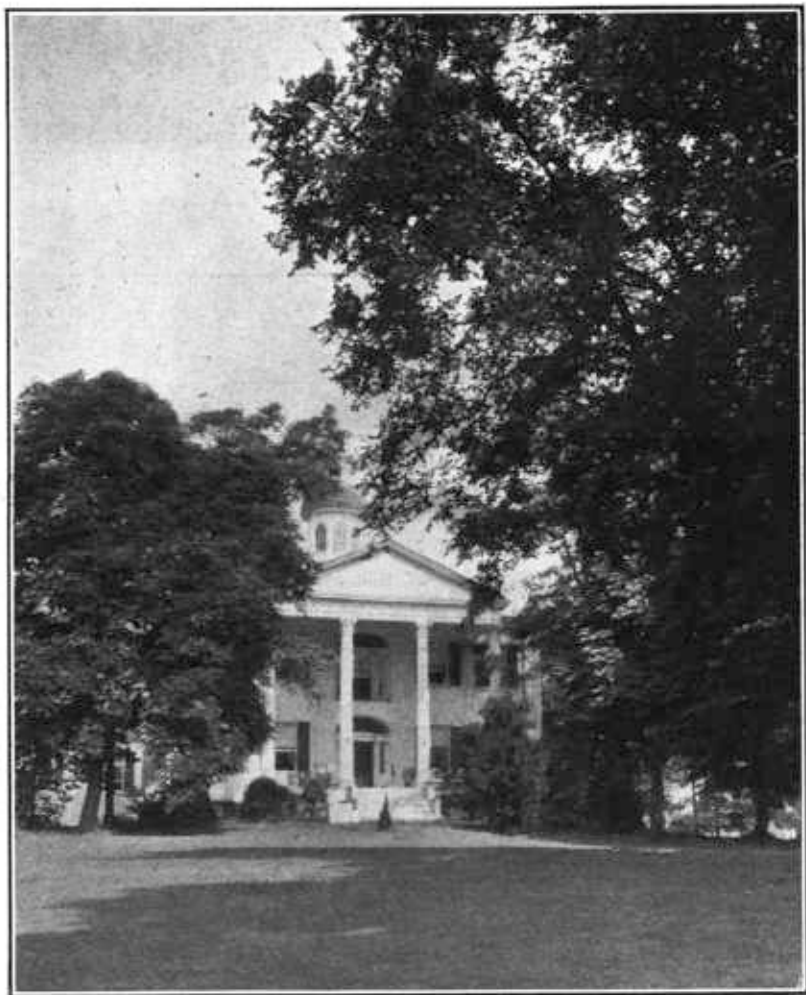


FIG. 12.—A typical mansion south of Mason and Dixon's line.

steps, tennis courts, and formal gardens. Informal design is economical in development, as it usually can be made to conform closely to existing conditions, thus reducing grading to a minimum. It can be maintained with little work.

Each plan is a study in itself and only by considering the conditions to be met can a successful one be made (fig. 15). The making

of a good plan of the informal style is not difficult if an effort is made to meet the existing conditions without attempting to do things simply for show.

In applying the suggestions made in the following pages it will be found frequently that more than one applies to the particular case



FIG. 13.—Buildings should appear to belong together.

but if that one is carried out the other can not be followed. The designer has to choose between such alternatives. The successful plan is one in which compromises are successfully made to give a livable, workable whole with an appearance of modest comfort.



FIG. 14.—Farm buildings out of harmony.

Although the number of details requiring attention may seem confusing on the first reading, when the attempt is made to apply them they will be found to be comparatively simple. On most farms this work can well be planned and carried out by the farmer and his

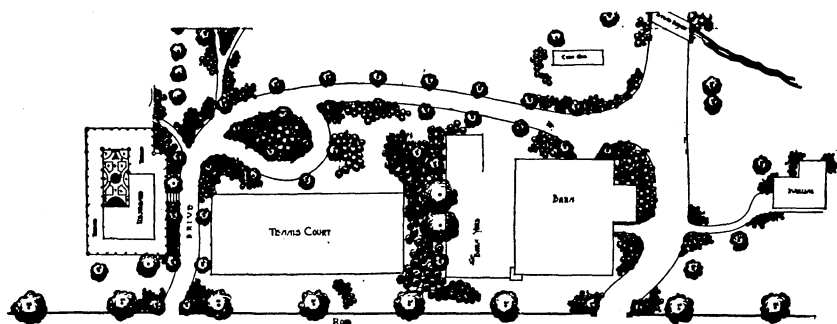


FIG. 15.—A plan for a farmstead when a good house, barn, and tenant house were already erected close to the public road.

family. It is necessary to decide, first, the working and living conditions that need to be met, and, second, the impression which it is desired that the home shall give. For the more expensive places and for smaller places where much grading is involved, the employment of a landscape designer is usually more satisfactory and economical. In most communities there are no well-trained men available to advise in such matters on terms within the reach of the small-home owner. In localities well organized for community work it may be possible to secure a landscape designer and an architect to help several in the community at one time. If the plan is good much can be accomplished in the way of improved appearance with only a little work required for installation and maintenance. If too much ground is included in the farmstead or the design is made too intricate, the care of it will

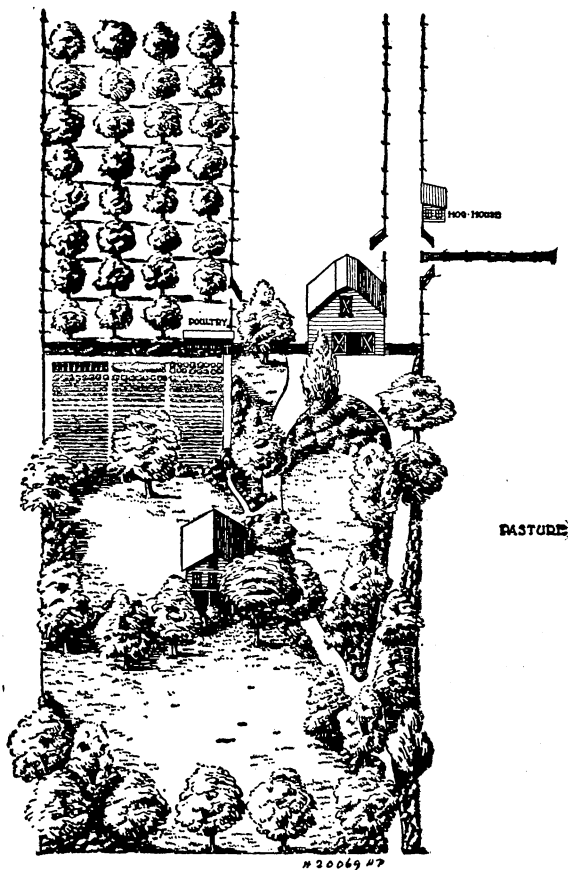


FIG. 16.—Plan of a 2-acre farmstead.

be burdensome. A little ground neatly kept is more attractive than more ground not well maintained. On a small farm 2 acres can often be made to accommodate the buildings, with fruit and vegetable gardens, adequate for a small family (fig. 16), while on larger places 10 acres or more may not be inappropriate.

If a formal flower garden (see figs. 4 and 36) or other features that require special attention in maintenance are desired, the grounds should be so planned that these features may be added after the other portions are developed and the amount of care which they will require has been determined from experience. In this way, features

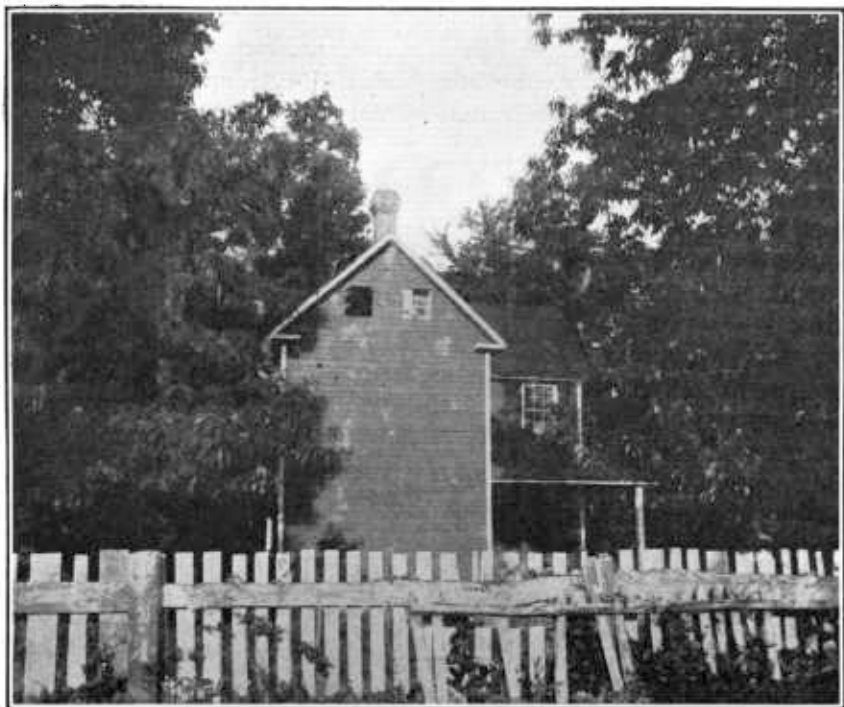


FIG. 17.—A familiar type of farm or tenant house in many parts of the country. Compare with figure 18.

calling for special maintenance will be limited to the labor available. No rules can be laid down as to the character or extent of landscape development that can reasonably be maintained. One person will slip into the garden for five minutes two or three times a day as a relaxation from regular work and almost unconsciously pull a weed here, train a vine there, and so have a large part of the work done without realizing it, while another can not accomplish this without a special trip for the purpose. The personal tastes of the members of the family will determine very largely the extent and character of the development.

LOCATION OF THE BUILDINGS.

The appropriate size of the grounds is dependent on the size and style of the house and of the farm and farmstead as a whole. The more pretentious the buildings, the more ground is required to give a proper setting. Cramped grounds dwarf the effect. Too much ground is undesirable because the care required is out of proportion to the needs.

The essentials of a good design for a home are that the buildings and grounds shall be comfortable, convenient, appropriate, and



FIG. 18.—A transformation in the appearance of the house shown in figure 17, made by attention to details.

attractive. This holds whether the place be large or small, whether there is one small house on a small lot or whether there are several large buildings on a farm. The first three conditions should be solved with the fourth constantly in mind, so that all will be worked out together.

Sometimes a slight change will work wonders. Every one is familiar with the type of house shown in figure 17, but few realize how the changing of the location of a chimney and the addition of windows and porch will improve its appearance, as shown in figure 18. Of course, the removal of the fence adds to the attractiveness

of the place, but by covering the lower portions of both pictures it will be seen that the fence is only a minor factor. The exposure is one of the most important considerations for securing the comfort of the family. In cold countries protection from the winter winds



FIG. 19.—A view from a living-room window.

is desirable and the location of the most used rooms should be on the warmest side of the house, while in warm countries the house and living rooms need to be so located as to get the benefit of the prevailing winds during the hottest months.

The elevation should be such as to make possible thorough drainage, even though it may be desirable to keep off the highest ground.

Under no circumstances should the house get the drainage from other buildings.

If at all possible, the house should be so located near good trees that their shade may be used and enjoyed by the family every day during the summer. It takes so long to grow good trees that existing trees should be cherished and utilized to the fullest extent.

The outlook, too, should be well considered and the rooms used most should be given the benefit of the best views; those from the kitchen as well as from the living room should be attractive. The near view should be over an unbroken lawn, and there should be some object of interest beyond. If there are no such objects in the general landscape, such as a mountain, a water view, a woodland, a meadow,



FIG. 20.—A pasture as an extension of a lawn.

or an extended farm view, a handsome tree (fig. 19) or other bit of near-by landscape may be available. Lacking these, possibly some feature may be created on the place, such as an attractive group of shrubs, well placed and arranged so as to have something of interest each month. Good views should be sought or created and utilized to the greatest advantage.

In a hilly or mountainous country a site should be selected that will provide a little level land immediately adjoining the house. This is necessary both for appearance and for comfort in living. Where such a setting is not provided the house is likely to give the impression of being about to slide from its location, while with a little level ground close by it may give the appearance of fitting closely into the site. In the case of a side hill or bank house it may

be necessary to build with one side facing on a higher level than the other. If the level areas are of reasonable extent, although at different heights and separated from each other, the desired impression may still be given. The many discomforts of living with a side hill at the threshold are a vivid reality only to those who have experienced them.

The area that should be set aside for the house lot is dependent on so many factors that it is hard to give rules. The larger and more pretentious the house the more land should appear to be with it. The least there should be is the greatest amount of space that the family can use and enjoy. The minimum would seem to be five times as much ground as is covered by the house, although twenty times as much would be better, with enough room added for a tennis court,



FIG. 21.—A farmstead having too many unrelated buildings.

croquet ground, or other playground, and a liberal flower garden. Though it may be necessary to have a lawn which is small, it is frequently possible to increase the apparent size by making adjacent areas appear to belong with it (fig. 20). If the apparent size can not be increased, as suggested under lawns, it should be at least possible to prevent the dwarfing of the appearance by growing only low crops in the near-by fields, keeping tall crops and orchards at a little distance. Where this is impracticable the area of the home lot should be doubled or trebled.

The barns as well as the house should be well located, and not only must they be properly arranged to facilitate the farm work and be accessible to the road, but they must be reasonably convenient to the house without being too close, prominent, or obtrusive. They should be so situated with respect to the house that the pre-

vailing winds, especially during those seasons when the doors and windows are likely to be open, do not blow from the barns toward the house. On the other hand, in cold climates the barn as well as the house needs protection from severe winter winds.

Further, the buildings must be arranged for convenience. The interior of the house and its connection with the outside features, whether with the barns or the public road, should be adapted to the everyday life of the family. All too common examples of inappropriate farm architecture are front doors that are never used except for funerals and parlors that are so seldom used that when they are used they cast a reserve over the whole family. Drives and walks to such front doors are a meaningless formality and should be eliminated. In a house of such design the neighbors usually go directly to the kitchen, because they know that is the entrance the family uses, and the life of the family is so far from the front door it is impossible to get any response even if the attempt is made. A more pleasing and satisfactory arrangement is to have the entrance open directly on the part of the house the family uses, as shown in figures 6 and 9.

The entrance should be so located as to be easy and natural for both the family and visitors to use. The approaches to it should be so direct that there is no feeling of being taken out of the way in following the roads or walks provided. In such an arrangement the entrance and approaches are naturally used in accordance with their design.

The barns should be at a little distance from the house, but close enough to facilitate the work to be done, and of such a character architecturally that they look as though they belonged together. The buildings should be as few in number as is practicable, or at least should have the appearance of being a unified group from the principal viewpoints. Such results can be brought about by careful grouping, sometimes even building them around a courtyard, or if necessary connecting some of them by sheds or walls. The objection to close grouping is the danger from fire, but facility in doing the work may be an offset to this. A number of small unrelated buildings gives a "cluttered up" appearance, as shown in figure 21.

WALKS AND DRIVES.

The entrance to the farmstead from the public road is one of the most important details of the plan and one of the most difficult to treat successfully without underemphasizing it or overdoing it. It should be so located as to facilitate direct and easy access to both house and barn and make the approach to either seem natural and easy, while at the same time appearing to lead primarily to the

house. On the other hand, it should not be directly opposite the front door of the house, so that on entering one appears to be going straight into the house, except possibly in extremely formal de-

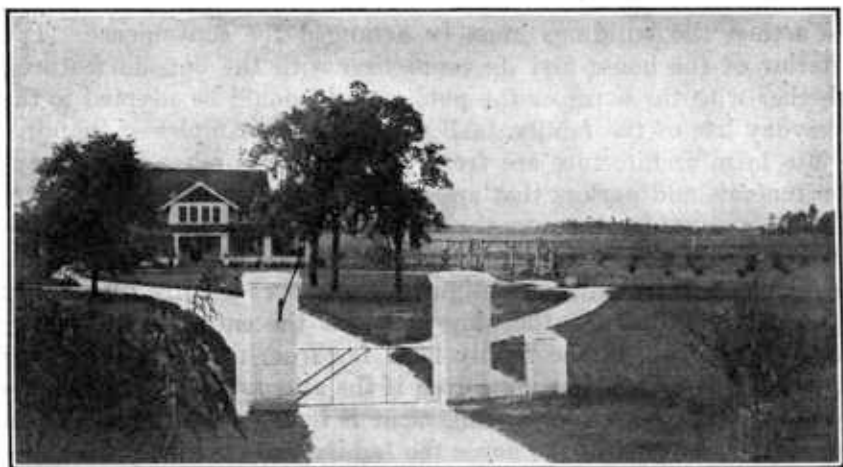


FIG. 22.—An entrance that gives a bad impression. Compare with figure 23.

velopments. In informal developments an entrance to the farmstead on the axis of the front door is not pleasing, even though the



FIG. 23.—The farmstead shown in figure 22 improved by placing the entrance to one side.

approach road swings well to one side after leaving the entrance. (Figs. 22 and 23.)

The entrance should largely reflect and suggest the character of the farmstead. If the farmstead is formal, the entrance should be formal,

but if the farmstead is informal, the entrance should be simple. The less formality there is in the farmstead the less there should be at the entrance. On the other hand, some special treatment is necessary to attract attention to it and set it apart from the rest of the boundary and to invite entrance, at least to the extent of inciting the wish to enter in those passing.

The character of this special treatment must so nearly correspond with the rest of the treatment of the farmstead that it can be united with it without an abrupt change of style at any point. The transition from a heavy stone or brick post to a barbed-wire fence is difficult unless the size of the farmstead is such that there is sufficient



FIG. 24.—A well-designed entrance. The appearance of the stone wall has been improved by recessing the cement joints.

distance to make the transition gradually. If the post is flanked by a wall of the same material that ultimately becomes the same height as the fence and the fence and wall are covered with vines for a considerable distance on each side of the joining, a successful transition can be accomplished. Such a stone wall, however, is inappropriate unless built of native stone in evidence in fences or buildings in the neighborhood or else is like the stone or brick clearly evident in the foundation or other portion of the buildings.

The design of the wall also has an important bearing on its appropriateness. The wall of native stone in figure 24 is appropriate and attractive. Figure 25 also shows a good entrance for its location,

but one which would be most inappropriate were it not for the heavy background of trees. The wall is good and is well covered with



FIG. 25.—A good gateway and wall for the location. Were it not for the mass of foliage behind, the posts would be too tall and too heavy.



FIG. 26.—A wall suited only to a formal landscape.

vines. The posts would be too heavy as well as too tall in most situations. The wall in figure 26 is so formal in design that if used at all

it should be only with a formal landscape, and then only when the buildings are of a similar checkered design.

Plants can be much more easily arranged to emphasize an entrance without overdoing it than can architectural features. Entrance plantings may either be formal, such as hedges or regularly placed specimens or clumps, or they may be altogether informal and irregular, as shown in figure 27.

As with all other details of the farmstead, development at the entrance, whether primarily of plants or of other material, must be appropriate in size, shape, and kind. Especially with plants there is a wide latitude of possibilities that may be appropriate, but the limits must not be exceeded if a fitting result is to be obtained.

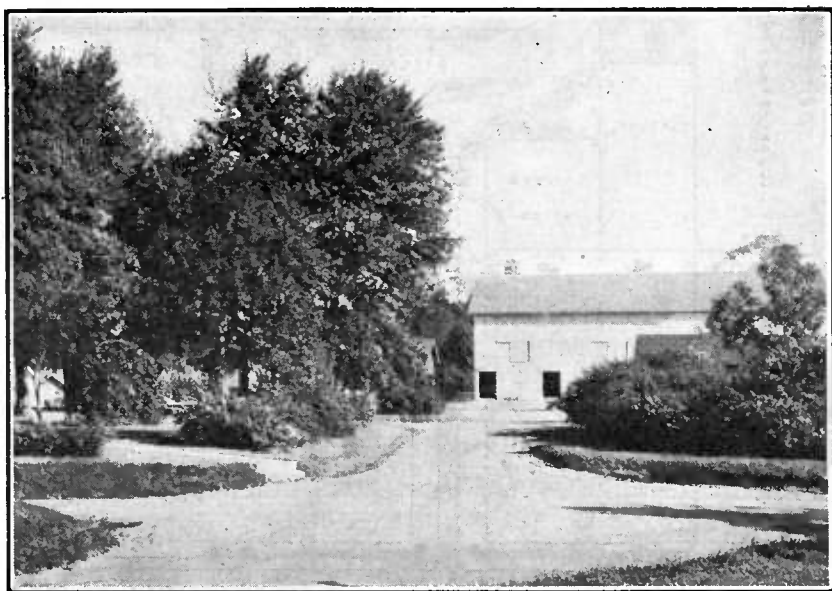


FIG. 27.—Informal plantings at the entrance to a farmstead.

The approach to the farmstead should be direct, but as a rule not straight toward any of the buildings. Where the buildings are near the highway a good plan is to have a single road enter the grounds, then to divide, one branch going directly to the barn and the other past the side of the house, passing near the main-entrance door, thence near the kitchen entrance, rejoining the road to the barn in such a way that the traffic may conveniently pass to the barn or return to the highway. (See figs. 6, 16, and 28.) This arrangement of a double road is to permit traffic to reach the barn without passing close to the house, while not greatly increasing the extent of road surface. The approaches should be so curved as to permit plantings to hide partially the barns and service yards

and thus screen them so that they will not be too conspicuous to those approaching. In hilly countries the topography or lay of the land will largely determine what may be done in the matter of approaches, and it correspondingly gives opportunities for variety of treatment.

In flat countries the problem of providing a convenient approach is not so difficult, but, on the other hand, it requires considerable thought and care to have it convenient without being commonplace and uninteresting.

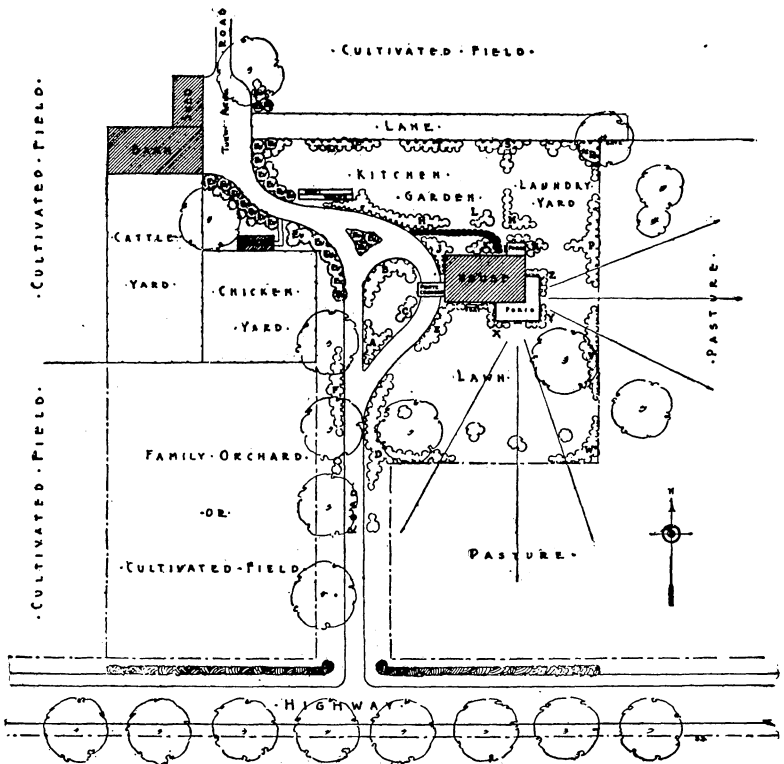


FIG. 28.—A good approach to a farmstead.

Where the buildings are located some distance back from the highway an approach from the public road to the group of buildings becomes necessary. In hilly countries this approach will often need to be curved or crooked in order to avoid objectionable grades. As far as possible the road surface should be kept hidden from the home, but on approaching, the visitor should from time to time get glimpses of the house and should feel that he is going toward it, although not straight at it. In a flat country, especially where the farms are all laid out in rectangles, the approach road from the highway had better be straight till it reaches the farmstead (fig. 29);

when the same general scheme may be adopted as though the farmstead were located directly on the highway. Such an approach road will be likely to run parallel to the lines of the house and barns, but it should not run directly toward either. A public building may be appropriate as the terminus of a vista made by a straight approach road, but a farmhouse or barn seldom is. A long straight approach road is made more effective by a row of trees on each side, forming a vista under their tops. There should be some attractive object to which the eye is drawn at the end of the vista, or at the "focal point," as it is called. This object may be an attractive landscape, a beautiful tree, or a clump of shrubbery. It is seldom desirable to have



FIG. 29.—A good entrance to buildings located well back from the highway.

an entrance door at the focal point of a combined business and home drive, such as the approach to a farmstead. Where a door is used as the focal point of a formal drive it should be merely an entrance door, not the door that leads to the lawns and pleasure grounds of the family, as the latter should have more privacy than could be given a door fully exposed to view from the main approach. On the other hand, ugly or uninteresting objects should not be the terminus of such a vista. (Fig. 30.) Trees or a clump of shrubbery, especially if composed mostly of evergreens, can help such a situation greatly. The other walks and roads about the farmstead should be as few as possible. All real needs should be met, but no provision should be made for fancied or possible ones. If in doubt leave out a walk until experience shows the need of it. The place where

it is supposed it might be needed can be put in turf until its need is demonstrated.



FIG. 30.—An inappropriate approach to a farmhouse. The opening to the woodshed could easily be screened by a careful planting of evergreens.

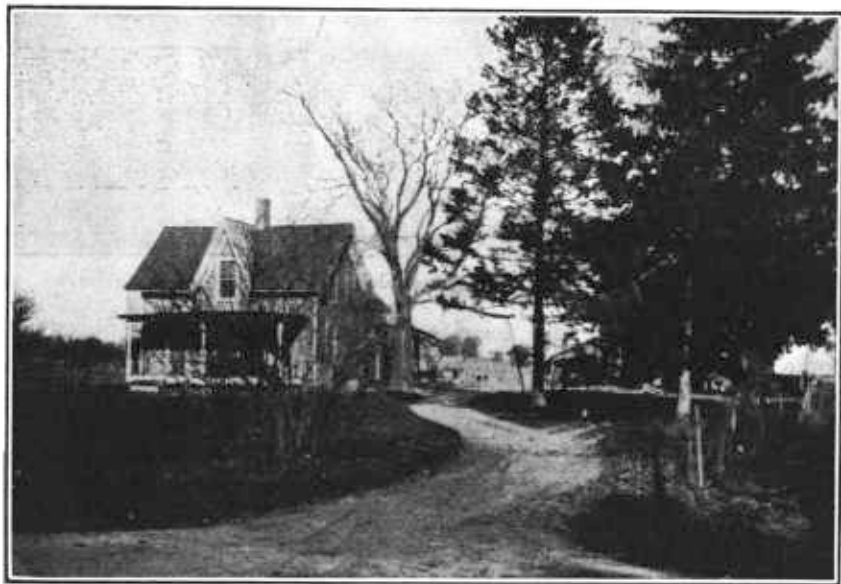


FIG. 31.—A good approach for buildings near the highway.

All roads and walks should be so located as to give the feeling of leading to their destination without unnecessary turns. This does not mean that they must be straight. They may be slightly curved

and yet give the impression of leading to the desired end. In informal designs, where the distance is not too short, a curved walk or drive (fig. 31) gives a more pleasing effect than a straight one. The amount of curve need not be great, often a deviation of the width of a walk or drive (fig. 32) will answer, while $1\frac{1}{2}$ times its width will be ample. On the other hand, curves should not be too abrupt, and there should appear to be a reason for each. Appropriate plantings can often be made to supply this reason if no other can be provided, and they are always useful in supplementing other reasons. In a rolling or hilly country the slope of the land can usually be made to give an excuse for the curves.



FIG. 32.—A satisfying result with a slightly curved roadway, a deviation of not more than its own width.

Paths and roads should not only be as few as possible, but should be kept out of sight as far as is feasible. Where practicable to conceal them, at least partially, by construction behind knolls or through depressions, it should be done if it does not interfere too seriously with their directness and if good drainage can be provided. Often artificial knolls and depressions are constructed to hide them, but this is seldom warranted unless the farmstead is large and the fund for development is liberal. On the other hand, a study of conditions and a little work may often accomplish wonders. Finally, plantings of trees or shrubbery may be used (fig. 33) after everything practicable has been done in other ways. Paths should not be installed where established roads can be utilized, even though

it may take extra care and expense to keep the road surface in condition for the dual purpose of a walk and drive. If it should not be practicable to keep the road in good condition for foot traffic, of course a separate footway would need to be developed, but it should be omitted unless really necessary. Both from the standpoint of appearance and of expense of upkeep the fewest possible drives and walks should be provided. A little-used walk or drive is usually as troublesome and as expensive to keep up as a much-used one, as it will grow full of weeds and will wash whether used or not.

The surfacing will depend on local conditions. As a rule, farm roads will be made of the natural soil and should be well crowned and provided with good gutters with liberal outlets. In most parts

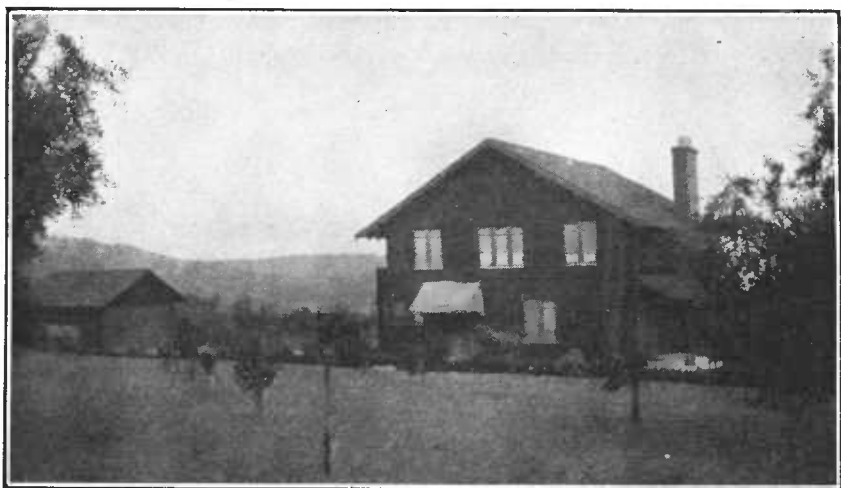


FIG. 33.—A well-hidden approach and service road. See figure 32 for another view of the same road.

of the United States little-used roads and many paths, even though much used, can be covered with turf and mowed, like the lawn. If the road is used sufficiently to cause ruts, soil can be brought to fill them. Where a more resistant surface is needed for a short time each season, stones 2 inches in size or larger may be mixed with good soil and the road formed of that material. Grass will grow in the soil and the stones will not permit a cutting up of the roadbed or the permanent destruction of the grass. The grass tops may be worn off by the traffic, but the roots will push out again after the wear ceases. Turf gutters (fig. 34) may be found satisfactory for road and walk drainage in all sections where there is sufficient moisture to maintain turf growth. To be successful, no ridge or shoulder should be permitted between the turf and the

road. Some material always collects in the gutter, gradually raising it, so that every few years it is desirable to lift the sod, remove some of the dirt under it, and relay it. Although this may seem like a good deal of a job, it will probably have to be done so infrequently as to prove one of the most economical ways of maintaining a gutter. Where an artificial road surface is needed, it should be as inconspicuous in color as possible. Cinders are one of the most desirable private-road surfacings, both on account of the color and because of good road-making qualities. Oyster shells, crushed limestone, concrete, and light-colored brick each have an objectionable color, contrasting too strongly with the normal green of country surroundings. Limestone combined with some of the dark-colored asphaltic oils or concrete colored by lampblack is pleasing in appearance.

Turf makes a good surfacing for footways that are only in use under favorable weather conditions, but those that are used in wet weather, especially if much used when frost is coming out of the ground, need some other material. Where available, nothing is more attractive than flat stones placed in the turf with the grass



FIG. 34.—A turf gutter.

growing between, as shown in figure 35, but they need to be set low enough to permit the lawn mower to pass over them. If a cement walk is necessary, a dark color should be given it by the free use of lampblack, while crushed-stone walks can be held together and more suitably colored by using some asphalt or coal-tar preparation.

SERVICE FEATURES.

Provision must be made for features that facilitate the work of the farm or increase the comfort of living. These include such things as work yards, storage yards, and cattle yards about the barns, an ice

house, a place for the storage of fuel, and a laundry yard near the house. Fruit, vegetable, and flower gardens must also be provided. Such features are all necessary, but should be so arranged as to serve the needs without being unduly conspicuous. One feature frequently overlooked is the provision for the delivery of the fuel supply near the place where it is to be used from roads arranged for other purposes. Failure to provide this is a continual cause of vexation. An ice house should be convenient in order to supply the daily needs of the family and yet not too conspicuous or too inaccessible for filling.

Wherever possible, buildings for several purposes should be united or be so located as to appear as one rather than multiply the number



FIG. 35.—A stepping-stone walk.

of buildings, as a large number of small apparently unrelated buildings detracts greatly from the appearance.

The fruit and vegetable gardens and the garden for growing cut flowers for indoor decorations, as well as the ornamental flower garden, are part of the farmstead and should be used in its setting. They will be pleasing in appearance if properly placed, well laid out, well cultivated, and kept neat.

An orchard can add wonderfully to the setting of the farm buildings. A mature apple orchard kept in turf makes a delightful extension for a lawn. A well-arranged and well cared for fruit or vegetable garden is always attractive and may often take the place of a flower garden as a decorative feature and source of interest on the farmstead.

The placing of such gardens for the greatest effect may prevent cultivating them by horsepower. This usually should be avoided, because it increases the labor in upkeep. If it is impossible to adapt the gardens to the location so that they can be efficiently cultivated, it is best to move them to a place where it can be done. Two essentials of an attractive farmstead are neatness and the evidence of cultural success. The accomplishment of these should be made as easy as practicable without unduly sacrificing the decorative possibilities. It should be kept in mind that the more ornamental the garden is designed to be, the greater the care required in its culture and maintenance. The careful placing and arranging of fruit and vegetable gardens, however, should not be made an excuse for



FIG. 36.—A formal flower garden with informal plantings.

omitting a flower garden, even though it has to be a small one. Occasionally it may be combined with the vegetable or the fruit garden.

An ornamental garden, whether devoted to flowers (see fig. 4), vegetables, or fruits, is in the nature of a transition from the formalities of the house to the informalities of the lawns. Its purpose and use should be largely that of an outdoor room. For this reason it should be near the house and somewhat secluded, having the privacy of a living room. In locating such a garden it should be kept in mind that views of the farmstead from the principal points should be largely open and free from special features that would distract the attention from the house. On this account, ornamental gardens should seldom be placed between the highway and the house, as the

principal views are usually obtained from points on the public road. If they are so placed they should be made as inconspicuous as possible either by screen plantings or in some other manner.

An ornamental garden may be either formal (fig. 36) or informal, but in either case it should be regarded as part of the house and its activities, not as its principal setting. It comes closer into the family life if it is on the side of the house away from the public entrance and is near to the living porch, so that it is easily entered from the porch. It should be included whenever the family tastes and circumstances permit the expenditure of the extra labor involved.

Such a garden may be simple, involving little work, or it may be elaborate. It should be the most definite expression of the family

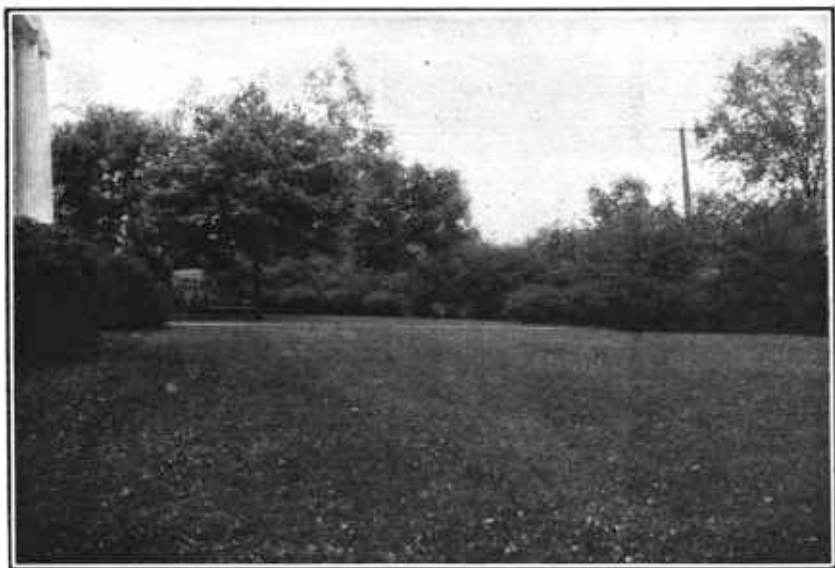


FIG. 37.—A lawn with irregular outlines.

tastes. A place for such a garden should be provided on the plan, but it may be left in lawn until the time comes for its development.

Probably the greatest enjoyment of such a garden comes in its gradual making. The first step can be the planting of shrubby borders to inclose it, followed the next year by the cutting of a few beds near the borders or at carefully selected points in the turf of the garden floor. By such steps it can progress until an intricate garden is completed, with its numerous beds and turf or gravel walks, or the garden may be left with a turf panel and narrow beds partially or entirely inclosed by shrubby borders. Walks, arbors, seats, a summer house, or a pool may be incorporated if fancy dictates. Here personal taste may find free expression with less re-

straint from surrounding conditions than in any other part of the grounds.

Flowers about the house are to beautify the grounds; therefore to depend on such flowers for cutting is to defeat the purpose for which they are intended. Although flowers may at times be cut from general plantings or from an ornamental flower garden without injury or detriment, yet such plantings should not be regarded as the legitimate source of cut flowers, nor should cutting be permitted to such an extent as to mar the appearance of the plantings as a whole. Most of the flowers for cutting for indoor decoration should be



FIG. 38.—A sharp ogee. There should be no line between the convex curve at the top and the concave one at the bottom; they should merge one into the other.

grown especially for that purpose, either in rows in the vegetable garden, where they can be cultivated by horse tools, or in their own garden, which should be arranged for economical cultivation.

LAWNS.

Lawns are most important for beautifying the farmstead. They are the background or foundation against which all the details are viewed. They should be in as large and unbroken stretches as possible, as this produces a pleasing effect, tending to give an impression of great extent and also making them easier to maintain. The borders should be irregular, as shown in figure 37, for an irregular outline increases the apparent size of the grounds by not revealing at one glance their actual limits. When bays on the lawn are formed by appropriate plantings it adds interest, as the depth of all the

bays are not visible from any one point and, at once, curiosity is aroused as to what may be in the hidden places; thus the grounds are made more interesting and give an impression of greater size.



FIG. 39.—A long ogee.

The surface of the lawn should be smooth enough to permit the easy running of the lawn mower, but many of the natural undulations should be kept, and if the surface is inclined to be flat some effort



FIG. 40.—A bank held by rocks.

might be expended to increase them slightly. Steep banks are objectionable, as they are more difficult to maintain than moderate slopes. Wherever it is necessary to have rapid changes in grade, an

effort should be made to accomplish it in the most natural manner practicable. If at all possible this should be by using a double curve, known to carpenters and landscape designers as an "ogee," which consists of a convex surface for the upper part of the slope and a concave surface for the lower part. Such curves may be either short and sharp, as shown in figure 38, or long and flat, as in figure 39. Where banks similar to those on railroad cuts or fills are necessary, they should be held in place by embedding rocks in the surface (fig. 40) when stone is available and planting among the stones or by setting out shrubs or vigorous vines (fig. 41), especially if the rock treatment is not practicable.



FIG. 41.—A bank held by vines.

Plane surfaces, either flat like a table or on a slope like a roof, are not desirable except in formal gardening.

The kind of lawn cover is important. The best for the region should be used, even if it requires a little more care to establish it. In most parts of the United States grasses can be utilized for lawns. In a few places other ground covers must be used unless great care can be given the lawn. Wherever it is at all practicable to grow it, grass is the most pleasing cover.

Lawns should be of sufficient size to give an ample setting, especially for the house. If well placed, 2,000 or 3,000 square feet may answer all purposes, although much more space is better. The apparent size of a lawn may often be materially increased by having a

pasture adjoining it and separated by the most inconspicuous fence possible located in the least obtrusive position. (Fig. 20.) By care in scattering manure from time to time in order to prevent the grass from growing in clumps and by cutting weeds or grasses that tend to grow in bunches, such a pasture may be made a very attractive extension of the lawn, especially if it is provided with a few clumps of fine trees.

If the surface of the lawn is made reasonably smooth and it has been graded so that there are no steep banks, keeping the grass cut should be a comparatively easy matter. The finest turf is obtained



FIG. 42.—A good house, but bare and unattractive for lack of pleasing plantings. Compare with figure 43.

by cutting with a lawn mower every 5 to 10 days, depending on the season. A small area can be cut with a hand mower or a larger one with a horse-drawn mower. If the time necessary to keep a turf smoothly shaven is felt to be greater than is justifiable, an ordinary field mowing machine may be used from once in two weeks to two or three times in a season. Of course this will not produce as nice a turf as would result from the regular use of the lawn mower, but it will keep the lawn neat and reasonably attractive.

If cut every two weeks it may be possible to permit all clippings to remain on the ground. If cut less frequently the clippings will probably have to be removed after each mowing. Live stock should not be turned on the lawn to graze, as they will be likely to eat and trample the shrubbery as well as the grass. It is best to make a

clear distinction between the lawn and the pasture extension, separating them by the most inconspicuous fence possible.

For a full discussion of the subject of grading and making lawns, Farmers' Bulletin 494, entitled "Lawn Soils and Lawns," may be consulted.

ARRANGEMENT OF PLANTINGS.

Although the discussion of planting is left until the last, it is not because it is of least importance in the development of an attractive farmstead, but rather to make more clear its true function. There is a widespread lack of appreciation of the importance of the matters already discussed, and a corresponding feeling that no



FIG. 43.—The house shown in figure 42 tied to its location by plantings.

matter how poorly arranged and designed a place may be it can be made beautiful by a few flower beds properly located. This idea of the power of plants to beautify is not entirely erroneous, but it is certainly exaggerated. Although they can greatly soften grave faults, they can not hide them. While even a well-designed farmstead is bare and unattractive (fig. 42) until properly united by plantings of trees, shrubs, and flowers (see fig. 43), on the other hand, plants may be so poorly arranged that they fail to add as much to the appearance as they might.

Plant arrangement as well as the design of the grounds may be divided into formal and informal plantings. Formal planting is the arrangement of plants in regular order, either in straight lines or in balanced geometrical designs. This is true whether the effect

is produced from the regular placing of individual plants or by massing several specimens of a kind. Such planting is only appropriate in a formal design, which on farmsteads would be in connection with long straight approaches or in formal gardens.

Informal planting is the arrangement of plants irregularly, more or less in the manner in which they are found in native woodlands and thickets, and they may be used singly or in groups of any size with any number of kinds. Planting of this kind is appropriate with either a formal or an informal design and is especially adapted to farmsteads and home grounds.

In formal plantings all the plants must be set and trained to conform to the design (see figs. 4, 16, and 36), while informal plantings



FIG. 44.—Trees about and between farm buildings, giving needed shade and partial seclusion.

should be placed irregularly and trained to bring out the individual characteristics of each variety, so that the result may be as varied, graceful, and natural as possible.

TREES.

The first thought in connection with planting about a farm home turns naturally to trees to provide shade. Old places in the eastern part of the country, both North and South and in the Middle West, and the most homelike and best-developed places in the newer parts of the country have well-grown shade trees about the house and a few in the work yard between the house and barn. (Fig. 44.) Where a farm has been hewn out of a wooded country some fine old trees will usually be found in the stock pastures, and in a few cases of farms on treeless prairies some consideration has been given the

live stock by providing trees in the cattle yards. The finer and better the trees about a farmstead the more the attention is likely to be attracted and the greater the impression of homelikeness. A single tree is often sufficient to make a place attractive. (Fig. 45.)

Trees, then, are of great importance in giving an attractive appearance to the farmstead as well as in making it a more enjoyable place in which to live by providing welcome shade and protection from undesirable winds. Trees should be planted with the possibilities of this twofold use clearly in mind. In most of the country north of the 40th parallel there is need of protection from the cold northwest winds of winter and also of shade about the buildings in summer. To meet the former requirement groups or clumps of trees should be so located that they break the force of these objectionable winter winds, while at the same time they occupy the least possible area



FIG. 45.—A single tree is often sufficient to make a place attractive.

of tillable land. In the hilly parts of this region many farm buildings are built in the lee of a rise of ground or close against the side of a hill, so that there is less need of shelter planting. In the eastern and extreme western parts of the country such shelter plantings would be more effective if made largely of evergreen trees, especially those which normally hold their lower limbs, but in the central Prairie and Plains regions the moisture conditions in winter are such that only the hardiest deciduous trees will succeed. Where such shelter is needed the buildings should be so located with respect to it that not only will the trees give the needed protection but also form a background or setting for the buildings from as many points as possible. In addition to the trees providing the shelter, smaller flowering trees can be used in front to give an added interest to the planting. In other large areas, particularly in the western part of the country, where protection is needed from the drying southwest winds, a similar use can be made of shelter plantings. It is often possible to transform an apparently barren waste

into a region of productive farms and good homes by first planting shelter belts at frequent intervals (figs. 46 and 50).

Shade trees should be located with a twofold object in mind: (1) To provide shade during the hot season and (2) to make an attractive setting for the house. Although this is the order of importance in the life of the family, the trees would best be located having in mind, first, their value as a setting for the house and then the desirable points at which to provide shade, as they will give shade wherever they are set, but will only make a good setting when properly placed near the building. A sufficient number of trees should be used, however, to make enough shade to invite to outdoor life near the house. Trees should not be planted directly in front of the house,



FIG. 46.—A windbreak that makes living more comfortable.

but they should be placed somewhat to each side so as to make a frame through which a view of a portion of the front is obtained. When the trees are grown they should partially shade the house without entirely covering the front. In the southern part of the country it may sometimes be admissible to plant large trees on both sides of the front, so that when they reach maturity their branches meet. This may only be done if the trees are of a very high headed variety, if they are trimmed so that a good view of the house is obtained beneath them, and if the house faces south. If it faces in any other direction, sufficient shade can usually be provided by some other arrangement. A common fault is to plant too many trees and plant them so close to the house that the shade is too dense and keeps out all the sunshine and much of the air. For this reason as well as for

the sake of appearance it is desirable that the trees be so planted that at maturity their branches will not meet across the front of the house. (Fig. 47.)



FIG. 47.—Trees partially hiding a house front.

It is usually desirable to have a large shade tree somewhere near the southwest corner of the house, as protection is most needed from



FIG. 48.—Trees at the back of the house form a frame.

the midafternoon sun. In some cases it will be best to place the tree on the west side; in others on the south; and again a group of

them about the corner may be better. This may bring the trees to the rear of the house as a background (fig. 48) instead of as a screen in front. Not only should a portion of the front of the house be seen from the principal viewpoint, but there should be an open lawn in front of it. This lawn may be bordered on either side by plantings of trees or shrubs, or both, depending on the size of the place and the character of the development. If the lawn extends to the road, this side may also have trees, under the branches of which views of the house may be obtained. If the house is so far from the road that the lawn does not extend across the intervening space, it is usually inadvisable to inclose the road side of the lawn with trees, no matter how large it may be, as that would entirely hide the house from what



FIG. 49.—Trees partially hiding the front of a barn.

would naturally be the principal viewpoints. Although it is desirable to hide partially the outlines of all the buildings, it takes from the interest to have them completely hidden. It may be advisable to have some trees on the road side of such a lawn, but liberal vistas should be kept open, so that some good views of the house are obtained.

The house and its surroundings, as the home center and the most important unit of the farmstead group, has been emphasized in this discussion. The barns and other buildings should be so planned and located as not to overshadow and take from the interest in the house, even though they may be much larger. By a proper arrangement and the planting of trees and shrubs this can be accomplished without the sacrifice of utility or convenience. The barns, like the houses, usually can be partially hidden from the principal viewpoints (fig. 49) without detracting from their usefulness or wasting land.

It must be recognized, however, that this is not as easy to accomplish without interfering with other vital considerations as is the planting about the house. For example, with dairy and stock barns it is not, as a rule, possible to plant close to the south side, because of overshadowing the yards in winter, thus depriving the cattle of the full sunshine and also possibly making the yards a mudhole. In many cases the south is the principal viewpoint. Sometimes, however, trees can be planted to overhang the corners of the barn (fig. 49), or if it is not too high can be behind it, partially framing it in foliage. Here, again, care must be used both in selecting varieties and in placing them so that the tops will not interfere with hauling in hay and grain or the trunks interfere with other necessary work.



Fig. 50.—A screen of trees protecting the house from objectionable winds. The trees will ultimately form an attractive background for the house.

Paddocks are needed on almost all farms, and the inclusion of a few trees in the lot is helpful to the stock. When such paddocks can be located between the barns and the road their appearance can be greatly improved, while at the same time the land is fully utilized. Orchards frequently can be planned to help in the problem. It is not always easy to find the right solution, but when it is once realized that a barn unsupported by greenery is as much a blot on the landscape as a house so located, efforts will be made to bring about a better condition. Many of the obstacles will be found more imaginary than real, although there will be enough real ones left to require genuine, well-directed, energetic effort in order to solve the problem of making the farmstead homelike.

It is sometimes asked whether trees near a barn may not be dangerous by drawing lightning. They are much more likely to act as

a protection, either dissipating what might otherwise be a lightning stroke or receiving the stroke instead of the building.

If well planned, this partial screening of the building can be largely accomplished by trees that are at the same time serving some other useful purpose in connection with the farmstead, such as giving shade in stockyards, pastures, or work yards. The windbreak or orchard may likewise serve a double purpose. In this planting it is not necessary to hide the buildings entirely; the aim is to make them less obtrusive by partially concealing them in foliage. The barns, like the house, should not be surrounded too closely by shade. This fault, however, is seldom found about farm buildings.



FIG. 51.—Evergreens add to the attractiveness of a home in winter.

It is often desirable to screen certain objects from view. (See fig. 30.) Tall plants are sometimes necessary for this purpose, and trees are the logical plants to use. Usually it is best to plant them as for a windbreak (fig. 50), although there are conditions when they may be planted as a grove to equal advantage. Such plantings are most effective when located near the object to be hidden, although there are times when a tree or two near the point of observation must accomplish the purpose.

The way these results are to be attained are among the important details of the preparation of the farmstead plan, and these matters must be considered in connection with the other details. In carrying out the plan one caution needs to be observed; that is, not to plant too many trees nor to have them too close together. When planted, the

ordinary tree looks so small that it seems as though it could never fill the space provided. The result is that often more trees are added, thus making them too close when grown. Frequently trees are planted with the expectation of removing some of them, but when the time comes the home makers have become so attached to them that the inclination is to leave them a little longer and a little longer until the proper time for removal is past, the permanent trees are ruined, and still the temporary trees remain.

Except in the extreme South, only deciduous trees should be used for shade close to buildings, so that all the light possible will be available during the winter. At a distance of 75 to 100 feet or more



FIG. 52.—A farm home with good trees but without shrubs still looks bare. Compare with figure 53.

from a building evergreen trees can be used either in some of the groups provided for shade or in the screen plantings. A few evergreen trees or shrubs give an appearance of life to plantings in winter and thus add materially to their attractiveness. (Fig. 51.)

SHRUBS.

Trees alone, without the addition of shrubs and vines, will not give the best possible effect. A farmstead without such additional plantings will still appear bare and unfinished, as shown in figure 52. Many places are already well provided with trees, so it only requires the planting of a few shrubs to make very attractive looking homes. Besides having a portion of their tops hidden by foliage,

the farm buildings also need to have much of their foundations hidden. The lines of a building are mostly straight and formal. To make these a part of an informal picture it is necessary to have the



FIG. 53.—Masses of shrubs under the trees take away the bare look seen in the illustration of the farm home shown in figure 52.

straight lines broken and disguised as much as possible. For this reason it is desirable to put masses of shrubs at various points around



FIG. 54.—Buildings look appropriate when they rest in a mass of trees and shrubs. Additional trees are needed near the house as a setting and for shade.

the foundations. (Fig. 53.) These plantings should vary in height and width, so as to hide and modify the straight lines instead of drawing attention to them. On the other hand, portions of the

foundation should be exposed and the lawn should be carried directly to these exposed portions, so that the building will appear to be supported. Success in planting is achieved when the buildings appear as though they belonged to the place and fitted naturally together and into the landscape. This is best accomplished by having them rest in a mass of trees and shrubs (fig. 54) while standing firmly on visible foundations. The corners are usually convenient places to plant with tall broad clumps, and these may often be extended into the lawns for a considerable distance. Angles formed by porches, by steps, or by an ell of the building are other points frequently utilized for such groups. Tall groups often may be used also against wide places between windows, while only low ones may be used under



FIG. 55.—At this farm home there is nothing to clearly define the location of the road. Compare with figure 56.

windows. Care must be taken not to have the different groups too much alike in breadth, height, and texture of foliage, or in “expression,” as it might be called.

To emphasize the feeling that the house belongs to the surroundings, the appearance of definite boundaries to the lawns should be avoided as much as possible. On most farms it is necessary to limit rather definitely the ground devoted to the home, but this limitation should not be made any more emphatic than can be helped. As already suggested, it is often possible to have the pasture or a meadow adjoin the lawn with an inconspicuous fence between. Another help to this impression is to disguise the actual boundaries by more or less continuous but irregular plantings along them. Where it is possible, distant views or near-by landscapes should be made to appear as though they were a part of the grounds. Much can be accomplished to this end by proper location of the tree and shrub

groups on the boundaries of the home lot. Openings should be left in the plantings to expose the desirable view from the windows of the most-used rooms, the porches, or portions of the lawn, and plants of suitable size and height should be used to hide the less desirable outlooks. If there be a broad view, it is usually made more interesting by being divided into parts, as 30° , or one-twelfth of the circumference of a circle, is about as much as the eye can see at one time, and this is as much as should be included in a single view of a distant landscape. If it is necessary to inclose the home lot, the most inconspicuous wire fence possible is desirable, although sometimes a fence covered with vines or a hedge is better. As fences or hedges accentuate the boundaries, they usually should be avoided and when used they should be made to attract as little attention as



FIG. 56.—Shrubbery on the grounds of the farm home shown in figure 55 indicates the location of the road and provides a reason for the turns.

possible. Their tendency is to give a "penned-up" feeling rather than the feeling of freedom that especially should be associated with the country home.

Shrubbery is also used to help outline the course of walks and drives and give an apparent reason for the turns (compare figs. 52 and 53; also figs. 55 and 56), and to make the surface less conspicuous by hiding it from many points. Such shrubbery must not be so high that persons in automobiles or other vehicles can not see others approaching around turns or so that vehicles and pedestrians are hidden from one another at the intersection of walks and roads.

Besides being used on the boundaries to screen less desirable views, shrubs are also useful as screens within the grounds either to hide objectionable views or to give privacy (figs. 57 and 58). It is sometimes well to shut off views between the barns and the house or

between buildings and the highway, or even to give privacy to a work yard or a flower garden. Shrubs will often do as well as trees for a

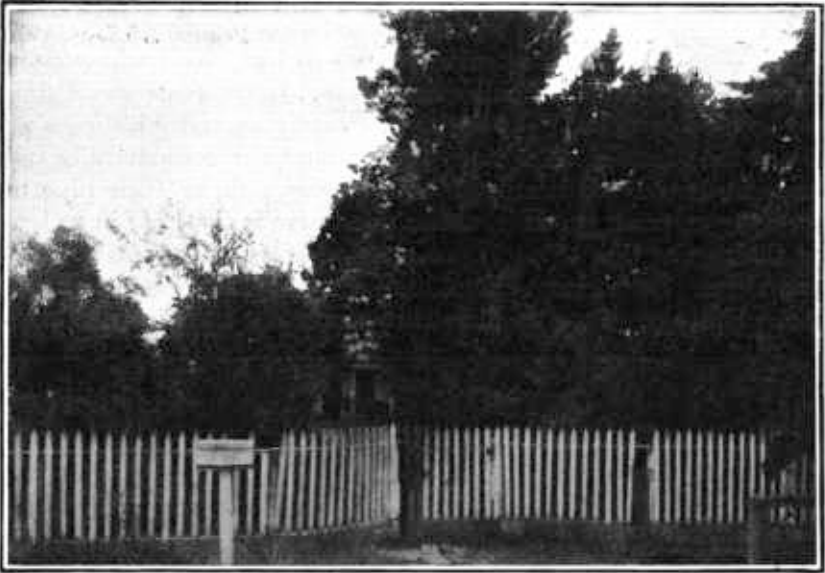


FIG. 57.—A screen to give privacy. Figure 58 shows what is behind the screen.



FIG. 58.—The farmhouse behind the screen shown in figure 57.

low windbreak. Besides the utilitarian screening just outlined, interest may be added by partially hiding one part of the grounds from another, simply to pique curiosity. If the whole of an object

is seen at one time curiosity is satisfied and interest in it is gone, but if part is hidden it invites exploration. This is another reason for extending occasional points of plantings into the lawn, either from border plantings (fig. 59) or from foundation plantings. Narrower plantings on either side of such points will leave bays whose depths can not be seen without further inspection. In the same way a clump may be used occasionally to excite interest by partially hiding a portion of the grounds. Not many such groups can ordinarily be used. There is danger of dwarfing the apparent size by such planting, especially on small grounds, unless great care is observed in so locating the shrubs that they do not obstruct what would otherwise be good vistas. Such clumps must have some apparent connection with other plantings. They should either seem to be a part of the border



FIG. 59.—Promontories on border plantings.

plantings, of the base plantings, or of the plantings along the drives and walks. A bed alone in the middle of a lawn detracts from the appearance instead of adding to it.

An individual plant seldom can be used to advantage. Where a small mass is desired and a shrub has the size and habit required to fill that particular need, then a single specimen may be used. Occasionally a shrub can be set just in front of massed plantings in order to give variety, but as a rule this result can be obtained better by combining the shrubs differently in the groups.

VINES.

Vines are among the most useful plants for "tying" buildings to their surroundings. There is a freedom and grace about their

growth that helps to relieve the formality of buildings or fences better than almost any other plants. (Fig. 60.) Care in their selection is necessary, however, as there are disadvantages in the use of some vines under certain conditions. On brick and stone buildings some of the clinging vines are most appropriate. An erroneous impression that such vines are injurious to the walls or make them damp exists in some quarters. This is true to the extent that they may keep the wall shaded and cool later in the spring than would otherwise be the case and so cause plaster applied directly to such walls to "sweat" in little used and insufficiently ventilated rooms. The difference between vine-covered and noncovered walls is in the time when this sweating process takes place. The leaves



FIG. 60.—Vines help to relieve the formalities of buildings.

of such vines have somewhat the effect of a roof in keeping much rain from reaching the wall, and the aerial rootlets have a tendency to absorb the moisture that might get under the leaves. Where the construction is defective they may at times find crevices between bricks or stones and thus reveal poor workmanship, but rain and frost will do that as surely as the vines. On wooden buildings the problem is somewhat different. Many vines that climb by twining will force their way through any joint that is not perfect and then by continued growth force the woodwork apart. Many other vines do not have this injurious effect and can be used appropriately.

The great problem is so to train the vines that they may be removed to permit proper painting of the woodwork when that is necessary. This may be done by means of a trellis hinged near the ground or a chicken wire placed over hooks at the highest point,

so that it may be removed. A trellis can be made of chicken wire on a pipe frame that will keep vines entirely away from woodwork. The thought is sometimes expressed that vines cause woodwork to rot. This is true if they are permitted to become so thick as to prevent proper ventilation and timely painting. Hot sunshine, however, is one of the most destructive forces in the life of paint. Vines by their shade help to preserve paint instead of destroying it.

Besides being appropriate on porches and on trellises against frame houses and on the walls of brick or stone houses, vines are



FIG. 61.—Scarlet sage in front of hemlocks.

also appropriate on fences, arbors, and pergolas, or on summer houses connected with the pleasure grounds or outdoor living sections of the grounds.

HERBACEOUS PLANTS.

Besides the plants already suggested for the principal plantings, the herbaceous perennials and the annual flowering plants offer a large amount of material that is very useful to add bloom and color where these may be lacking. Little bays or pockets may be left between the shrubs, especially near the borders of the clumps, that can advantageously be filled with hardy perennial plants that give bloom at a time when the shrubs are lacking in bright colors. As a rule the period of bloom of these plants is not much longer than that of the

shrubs, but many have extremely bright colors and these can be placed between the other plants where they will not take much room and will help to make a continuous picture. Most perennial plants will last three years or more without need of lifting and resetting. The spring-flowering bulbs, such as tulips, hyacinths, and narcissi, can also be scattered among the shrubs and be permitted to remain there and bloom for several years. Of these the narcissi are much the best adapted to this treatment.

Annual flowering plants can also be scattered at various points along the shrubbery beds and so provide color at a time when it is almost entirely lacking among the other plants. The tender bedding plants, such as cannas and geraniums, may also be appropriately used in the way shown in figure 61, where plants of scarlet sage have been used in front of some hemlocks, making a striking combination that could easily have been overdone. Such material should be used in moderation and in small clumps, never as continuous borders either to shrubbery beds or to beds along the house except in formal gardening. Beds of such material should not be planted in the open lawn. If that sort of planting is desired a formal garden should be provided where the planting can be done appropriately.

Tenants leasing from year to year or others expecting to be on a farm for only a few months can bring about much improvement by planting annuals and tender bedding plants in the manner described for shrubs.

PLANT MATERIAL.

In planting the farmstead the particular plants used, if hardy and adapted to the region and locality, are of less importance than the general effect of the mass. The expression of the mass, however, is dependent on the combined effect of the characters of the plants composing it. There are great differences of expression between the exclamatory or "look-at-me" impression created by the Lombardy poplar and other tall slim plants and the sympathetic and almost mournful impression given by drooping plants, like the weeping willow; between the sturdy self-reliant attitude, typified especially by the white oaks and live oaks, and the dependent or clinging attitude expressed by vines; between the formal expression of symmetrical rigid-growing plants, like the firs and spruces, and the informal expression of the tamarisk; and between the heavy effect of plants with large dark leaves and the airy effect of plants with small light-green leaves.

Plants with great differences of expression should not be used too close together, but should be united by those with intermediate characters. The lines of the different parts of the mass should flow into one another without too great contrasts. Transitions in color and

texture should also be gradual. The more unusual the characters of a plant the greater is the need for carefully placing it where it will be most pleasing.

Plants selected for home-ground ornamentation should be hardy in the region, should be comparatively free from attacks by insects and diseases, should have a reasonable quantity of foliage that is not liable to drop from slightly adverse conditions, especially weather conditions, and should be of the proper size, habit, and texture for the location; that is, where a tall upright shrub is needed a tall spreading one should not be used. Most of the planting should be of comparatively few kinds, although a few specimens of unusual sorts will give variety and add a certain amount of interest. The characters of plants that make them valuable for adornment are (1) foliage, (2) winter effect, and (3) flowers. The importance of foliage is due to its permanency, lasting from five months to a year, depending on the type of plant, the latitude, and the elevation, while the period of bloom is short, usually not more than two weeks.

Next to foliage in importance comes the winter effect. Taking the United States as a whole the average time that deciduous plants are without foliage is at least five months. During this period the farm home is occupied as continuously as in summer, and the surroundings should be as attractive as possible. Evergreen shrubs, both coniferous and broad leaved, maintain a color throughout the winter not otherwise obtained. Used in moderation, they are a distinct addition at this season. On the other hand, many deciduous shrubs have attractive winter characters, the most striking being bright-colored berries. Then there are barks of many shades of brown and gray, with some of bright red, green, and yellow, that if properly arranged make pleasing contrasts and add to the winter beauty. The short blooming period of the average shrub makes flowers the least important of the characters to be considered. In spite of this the color, character, and time of blooming should be considered as well as the behavior of the dying flowers, whether or not they fade to a conspicuous and undesirable color and hang on unduly or pass away without a distinctly unsightly stage.

The different kinds of plants should be selected so that they will give bloom through as much of the season as practicable, thus affording something of special interest as continuously as possible. The bulk of the planting, however, should be of a few species. Eight to a dozen kinds are enough for an ordinary place. With this small number, selected as far as practicable to bloom at different seasons, there is little danger of getting color combinations that will not harmonize. Where especially bright colors are selected, others should not be chosen for growing next to them during the same season unless

they harmonize. Near brick buildings, or buildings painted with bright colors, care must be exercised in selecting shrubs with colored flowers. White flowers are always safe and can be used to help in giving other flowers an appropriate setting. A plentiful use of the different greens or a mixture of many colors is also safe. It is only

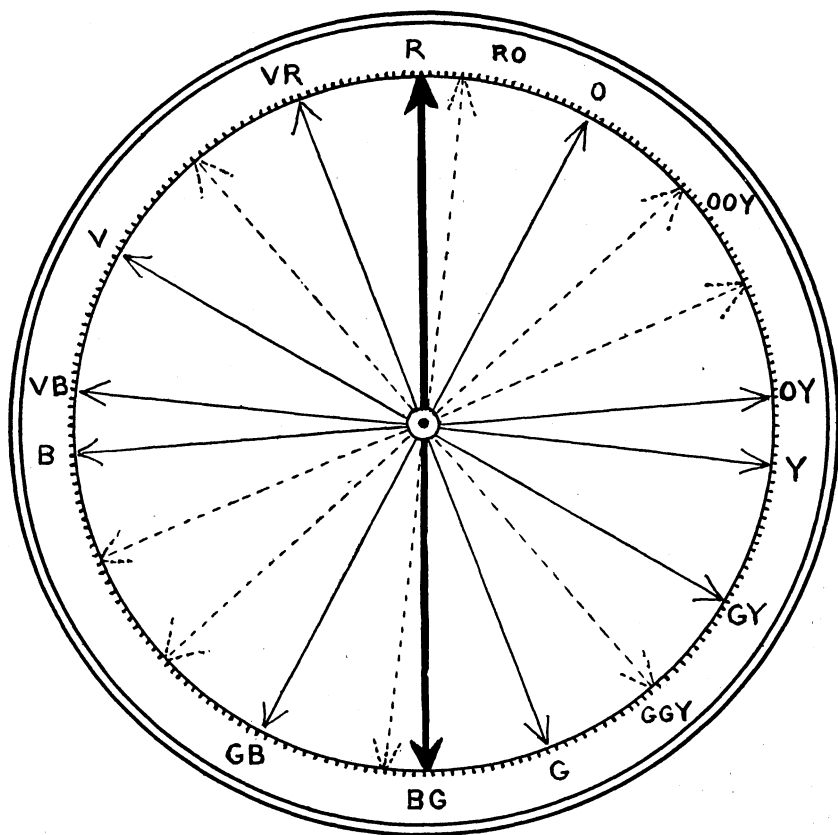


FIG. 62.—A chart showing the appropriate color combinations for highly colored flowers. Colors immediately adjacent to one another on the chart, or those opposite or nearly opposite one another, are apt to harmonize and are therefore safe to use together. Those at right angles to one another are liable to be discordant, and should not be used together by those not thoroughly familiar with color harmonies and the possibilities of color combinations. B=blue, G=green, O=orange, R=red, V=violet, Y=yellow.

when one or two colors are selected for use in quantity that danger of lack of harmony arises.

The reason that white is a safe color to use is because the human eye can observe it with least fatigue. It is composed of a mixture of the colors of the rainbow. Theoretically, each of the rainbow colors can be combined with some other color and produce white, although in practice it is a dirty white or light gray. Two colors

that can be combined in this way are spoken of as "complementary colors" and are shown opposite one another in figure 62. If a bright color is looked at intently for several seconds and then the eyes are closed the first impression is that of the complementary color. In practice, it is found that if with a large mass of bright color the complementary color is used or some of the colors near it on the chart, the result is restful to the eye and the impression pleasing. On the other hand, the impression is unpleasant if the colors indicated on the chart midway between the complementary colors are used with either. One who is sensitive to colors and makes a study of flower colors, however, can often successfully make daring color combinations that should not be attempted by those not experienced and not color sensitive. In ordinary planting it is good practice to use a color with those colors near it on the chart or with its complement on the opposite side, avoiding those shown at right angles. The colors found in any botanical species are safe to use together, but flowers of different species or hybrids of them, though of the same genus, are not always safe; as, for example, not all kinds of roses are suited to grow together. Where the aim is to get thrifty growing plants about the farmstead rather than to make the most striking display possible, there is little danger of making an inharmonious combination, as nature with its preponderance of green tends to avoid a too garish display.

In addition to locating clumps of shrubbery at appropriate places on the grounds, the placing of the various kinds of plants in the clumps has an important relation to the ultimate results. It is usual not to plant many clumps of a single kind. A mixture of plants of similar size in each clump gives the best results. One clump may be composed of one-half of one variety, one-fourth of another, and the rest of other kinds, while another can be nearly equally divided between two kinds, and still another can be three-fourths of one kind and the remainder of any other combination. Where a large quantity of one variety is used in a clump, it is well to have at least a few of the same plants in some of the near-by groups. In nature, trees and shrubs are mostly found in large quantities, either almost alone or well mixed with other plants. As the boundaries of these areas are reached, the plants are found in more or less scattered clumps, until the place is reached where there are none. In a similar way the plantings should be in comparatively large masses with scattered plants in other near-by clumps, as shown in figure 63, where the arrangement is indicated by different numbers for different kinds. The plants should be set at irregular distances apart, so as to avoid being in lines in any direction.

By making a few clumps largely of one kind of shrub and by scattering plants of it in others, the impression may be given of the yard being full of this plant when in the height of its bloom.

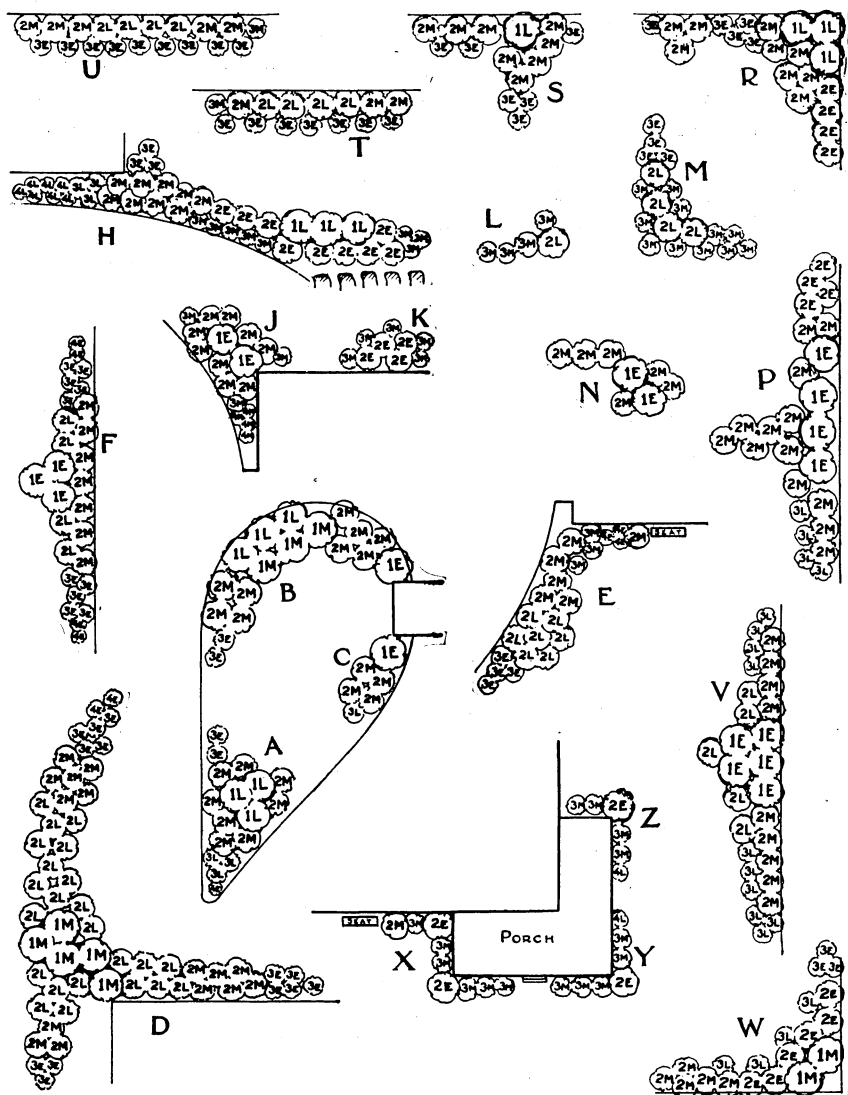


FIG. 63.—Sketch showing the plant arrangement in the groups illustrated in figure 28. The number signifies the height of the shrub: 1=large, 10 to 15 feet; 2=medium, 6 to 10 feet; 3=small, 2 to 6 feet; 4=low, 1 to 2 feet. The letter signifies the period of bloom: E=early, M=midsummer, L=late.

Then, by having another shrub predominate in other clumps with more scattering plants a similar impression may be created for another plant at another season. Other kinds can then be

restricted to limited portions of the grounds. If for any reason it seems desirable to use a certain shrub only in one particular clump, this clump can be made to appear to belong to the rest of the planting by including in that mass a specimen or two of the shrubs predominating in the adjoining groups. Most clumps need plants of different heights, the taller ones at the back, the shorter in front, and plants of any height may be used for "tying" them together. More than one height of plant may often be used for this purpose.

The kind of plants to use is of less importance than their location upon the grounds. In all sections of the country there is native



FIG. 64.—A handsome native shrub, the elder. It grows nearly everywhere in the United States.

material that is more desirable for local planting than most of the plants brought from other places. The more trying the conditions for plant growth, the more important it is to secure native species and stock of the commoner things that have been grown from seeds or plants gathered near home. There is wild material in every neighborhood that is more suitable for planting in that locality than nine-tenths of the plants described in the catalogues. This is as true of the dry-land country just east of the Rockies and the semiarid regions of the Southwest as of the more moist regions. Search along the streams, on the hillsides, on the plains, in the

woodlands, draws, arroyos, or canyons will reveal the attractive things that are close at hand. Europeans recognize the value of many of these plants, collect them and grow them a few years, and then introduce them to us. The common wild plants of any neighborhood should be largely used for home planting. Although many may be so common they have gotten in the way of cultivation, still they may be beautiful and have value for ornamental planting, as shown in figure 64. Nearly all improve with culture. Where possible to collect them from their native habitat there is a satisfaction in the final results that is not obtained from purchased material. Those collected in the vicinity are usually more difficult to transplant successfully than the same sort of plants purchased from a



FIG. 65.—Shrubs with temporary plants set between.

nursery. This is because in the wild the roots have never been pruned and so have run to long distances, with the result that when the plant is dug a much larger proportion of the roots is cut off than when taken from a nursery where they have been root pruned frequently. To correspond to this more severe root pruning the tops must be more than correspondingly cut away. This will seem like destroying the plant, but the important part of such work is to secure a vigorous root system that will put out new growth rather than to obtain a ready-made top. The more trying the climate for plant growth the more severe the top pruning should be. Besides the loss of a large proportion of the roots, failure in moving native plants comes from lack of sufficient care in keeping the roots moist

from the time they are dug until they are replanted. The roots should be kept covered with wet packing material from the time they are exposed to the air until they are again set in the ground.

If the plants are to be purchased, a reliable nurseryman, located where the climatic conditions are as near like the local conditions as possible, should be selected. The stock should have been produced from seeds or cuttings grown near home rather than from plants grown under different climatic conditions. The reason for this is that the plants will be likely to be hardier and be better adapted to the local conditions. A partially tender plant is always unsatisfactory.

There are two methods of setting shrubs for ornamental effect: One is to set them as far apart as they should be when they reach maturity, and the other to set them more closely and from time to



FIG. 66.—Shrubs help to make a house seem homelike. Although these shrubs are massed too much in front of the house they add greatly to its appearance.

time remove some of them. With the first method (fig. 65) it is necessary to use annuals or perennials between the shrubs for several years in order to have the beds and clumps filled. This usually does not entail much extra work, as such plants are frequently wanted at some point on the grounds or in the garden for their bright summer effect. The difficulty with the second method is that the thinning is not likely to be done as soon as it should be (fig. 66). Where only part of the spaces set aside for planting are ready, the plants for all the spaces may often be put where the beds are prepared, and then the extra plants can be taken to the place designed for them as soon as the beds are ready. In this way, too, it is possible to start with smaller, cheaper plants than where an immediate result is desired with permanent plants only.

After trees and shrubs are planted they will need hoeing and manure for two or three years until well established, when they can, for the most part, take care of themselves, unless rapid growth is a consideration; then the manuring and cultivation should continue. After becoming established they will need no pruning further than to remove dead or broken wood. If a mistake is made in the original selections, so that plants of a wrong size, habit, or texture are placed at any point, no hesitation should be felt about correcting the error by removing them and putting appropriate plants in their place.

ORGANIZATION OF THE UNITED STATES DEPARTMENT OF AGRICULTURE

January 4, 1928

<i>Secretary of Agriculture</i>	W. M. JARDINE.
<i>Assistant Secretary</i>	R. W. DUNLAP.
<i>Director of Scientific Work</i>	A. F. WOODS.
<i>Director of Regulatory Work</i>	WALTER G. CAMPBELL.
<i>Director of Extension</i>	C. W. WARBURTON.
<i>Director of Personnel and Business Administration</i>	W. W. STOCKBERGER.
<i>Director of Information</i>	NELSON ANTRIM CRAWFORD.
<i>Solicitor</i>	R. W. WILLIAMS.
<i>Weather Bureau</i>	CHARLES F. MARVIN, <i>Chief</i> .
<i>Bureau of Animal Industry</i>	JOHN R. MOHLER, <i>Chief</i> .
<i>Bureau of Dairy Industry</i>	L. A. ROGERS, <i>Acting Chief</i> .
<i>Bureau of Plant Industry</i>	WILLIAM A. TAYLOR, <i>Chief</i> .
<i>Forest Service</i>	W. B. GREELEY, <i>Chief</i> .
<i>Bureau of Chemistry and Soils</i>	H. G. KNIGHT, <i>Chief</i> .
<i>Bureau of Entomology</i>	C. L. MARLATT, <i>Chief</i> .
<i>Bureau of Biological Survey</i>	PAUL G. REDINGTON, <i>Chief</i> .
<i>Bureau of Public Roads</i>	THOMAS H. MACDONALD, <i>Chief</i> .
<i>Bureau of Agricultural Economics</i>	LLOYD S. TENNY, <i>Chief</i> .
<i>Bureau of Home Economics</i>	LOUISE STANLEY, <i>Chief</i> .
<i>Federal Horticultural Board</i>	C. L. MARLATT, <i>Chairman</i> .
<i>Grain Futures Administration</i>	J. W. T. DUVEL, <i>Chief</i> .
<i>Food, Drug, and Insecticide Administration</i>	WALTER G. CAMPBELL, <i>Director of Regulatory Work, in Charge</i> .
<i>Office of Experiment Stations</i>	E. W. ALLEN, <i>Chief</i> .
<i>Office of Cooperative Extension Work</i>	C. B. SMITH, <i>Chief</i> .
<i>Library</i>	CLARIBEL R. BARNETT, <i>Librarian</i> .

This bulletin is a contribution from

<i>Bureau of Plant Industry</i>	WILLIAM A. TAYLOR, <i>Chief</i> .
<i>Office of Horticulture</i>	L. C. CORBETT, <i>Senior Horticulturist, in Charge</i> .